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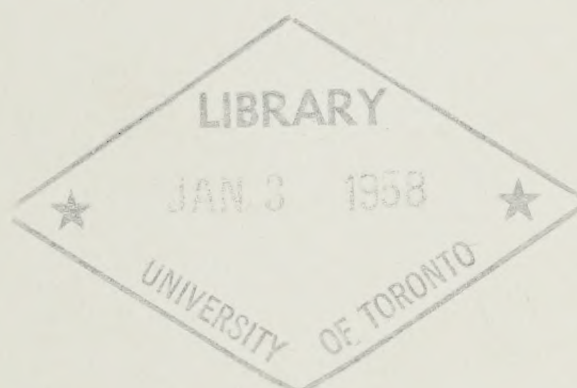
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IMMIGRANTS IN SCIENTIFIC AND TECHNICAL PROFESSIONS IN CANADA



A professional manpower bulletin

ECONOMICS AND RESEARCH BRANCH
DEPARTMENT OF LABOUR
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No. 1 – Trends in Professional Manpower Supplies and Requirements (August 1957).

No. 2 – Immigrants in Scientific and Technical Professions in Canada (September 1957).

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PROFESSIONS IN CANADA**

Professional Manpower Bulletin No. 2

**ECONOMICS AND RESEARCH BRANCH
DEPARTMENT OF LABOUR
Ottawa, September 1957**

**Hon. Michael Starr
Minister**

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Deputy Minister**

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Immigrants in Scientific and Technical Professions in Canada

The present report is based on an analysis of 3,318 questionnaires completed by immigrants for the Scientific and Technical Personnel Register of the Canadian Department of Labour. The information in this Register is based on questionnaires obtained during the period 1951 – 1956 and thus the data refer to this period generally and not to any specific date.

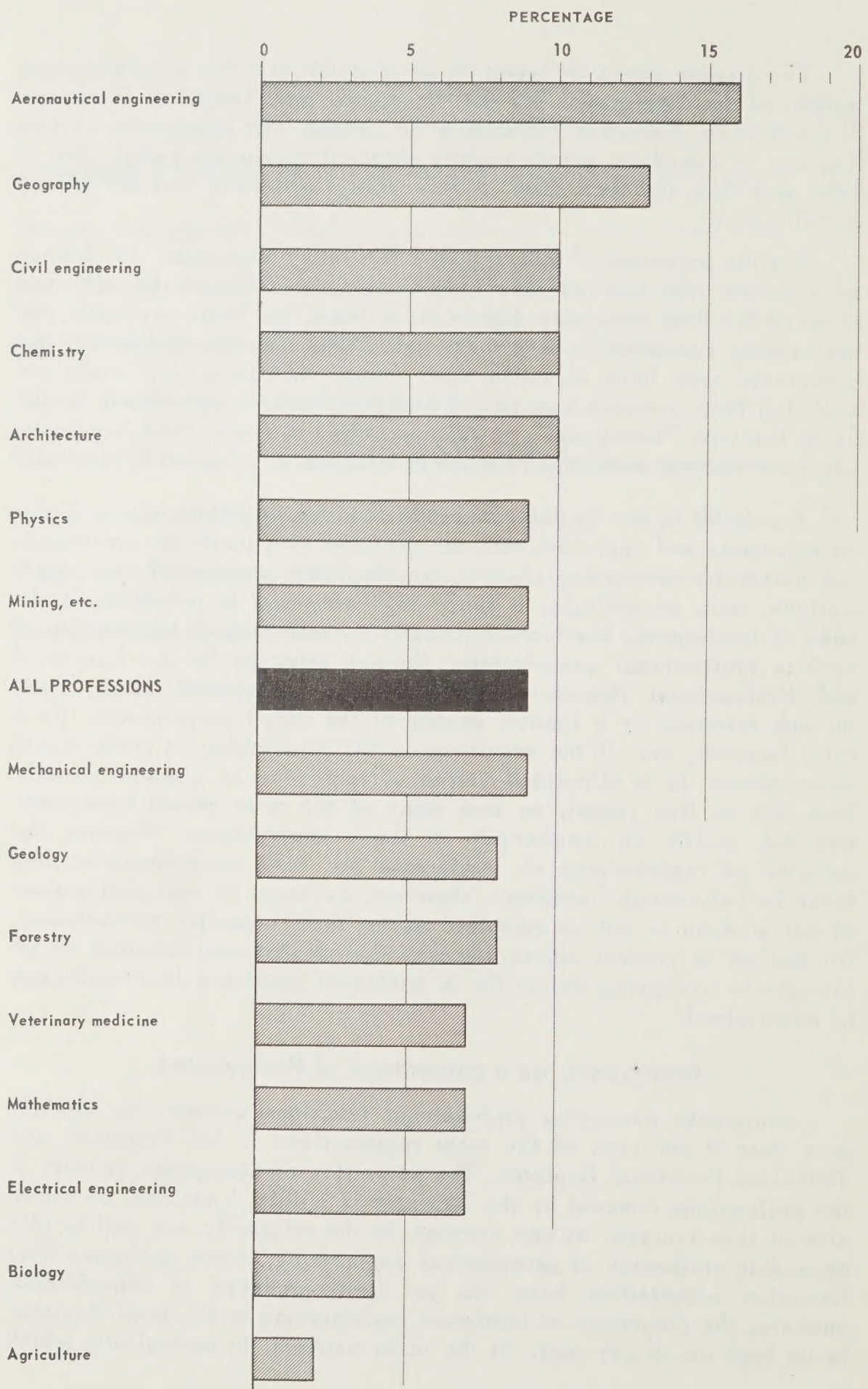
For the purposes of this analysis the term “immigrant” is defined as a person who has not only been born outside Canada but who has received his first university degree or, at least, his basic scientific and engineering education in a country other than Canada. It follows that immigrants who have received their formal education in Canada are excluded from consideration in the analysis. On the other hand, in defining the term “immigrant”, no differentiation is made between persons who have become naturalized Canadian citizens and those who have not.

Enrolment in the Register is conducted on a voluntary basis. As far as scientists and engineers who are educated in Canada are concerned, the university graduating classes are the chief sources of new registrations, and, accordingly, a fairly high coverage is possible. In the case of immigrants, however, registrations come through membership of various professional associations, through referrals by the Executive and Professional Branch of the National Employment Service, and through referrals by a limited number of the larger corporations. As a rule, however, one of the requirements for membership in professional associations is a stipulated period of residence in Canada (usually from one to five years), so that many of the more recent immigrants can not qualify for membership in these associations. Because the sources of registrations of immigrants are less comprehensive than those for native-born Canadians, therefore, coverage of immigrant professional workers is not as complete as for their Canadian counterparts. No method at present exists whereby the identity and location of all immigrants occupying scientific or technical positions in Canada can be ascertained.

Immigrants, as a percentage of Professions

Immigrants occupying professional positions account for slightly less than 9 per cent of the total registrations in the Scientific and Technical Personnel Register. The proportion of immigrants in most of the professions covered by the Register is within 2 per cent on either side of this average. At one extreme, in the relatively new and rapidly expanding profession of aeronautical engineering, where graduates from Canadian universities have not yet been produced in considerable numbers, the proportion of immigrant registrations to the total Register is as high as 16 per cent. At the other extreme, in agriculture, which

Chart I
IMMIGRANTS, AS A PERCENTAGE OF THE TOTAL REGISTER,
BY PROFESSION



is a long established and characteristic Canadian profession with a large body of personnel educated in Canada, immigrants account numerically for rather less than 2 per cent of the profession.

The registrations of immigrants in most of the other professions covered by the Register are close to the respective averages for these professions in the Register as a whole, with the two exceptions of biology, in which the proportion of immigrants to the total Register is low, and of geography, in which the proportion is high.

Table 1 – Immigrants, as a Percentage of the Total Register, by Profession

Profession	Immigrants	Total Register ¹	Percentage
Aeronautical Engineering	77	478	16
Geography	17	134	13
Civil Engineering	705	6,640	10
Chemistry	623	6,244	10
Architecture	131	1,321	10
Physics	120	1,360	9
Mining etc.	252	2,832	9
Mechanical Engineering	601	6,223	9
Geology.....	88	1,092	8
Forestry	122	1,624	8
Veterinary Medicine	65	959	7
Mathematics	29	409	7
Electrical Engineering	376	5,275	7
Biology	57	1,541	4
Agriculture	55	3,639	2
Total.....	3,318	39,771	9

¹Includes native born Canadians and immigrants.

Country or Continent of Birth

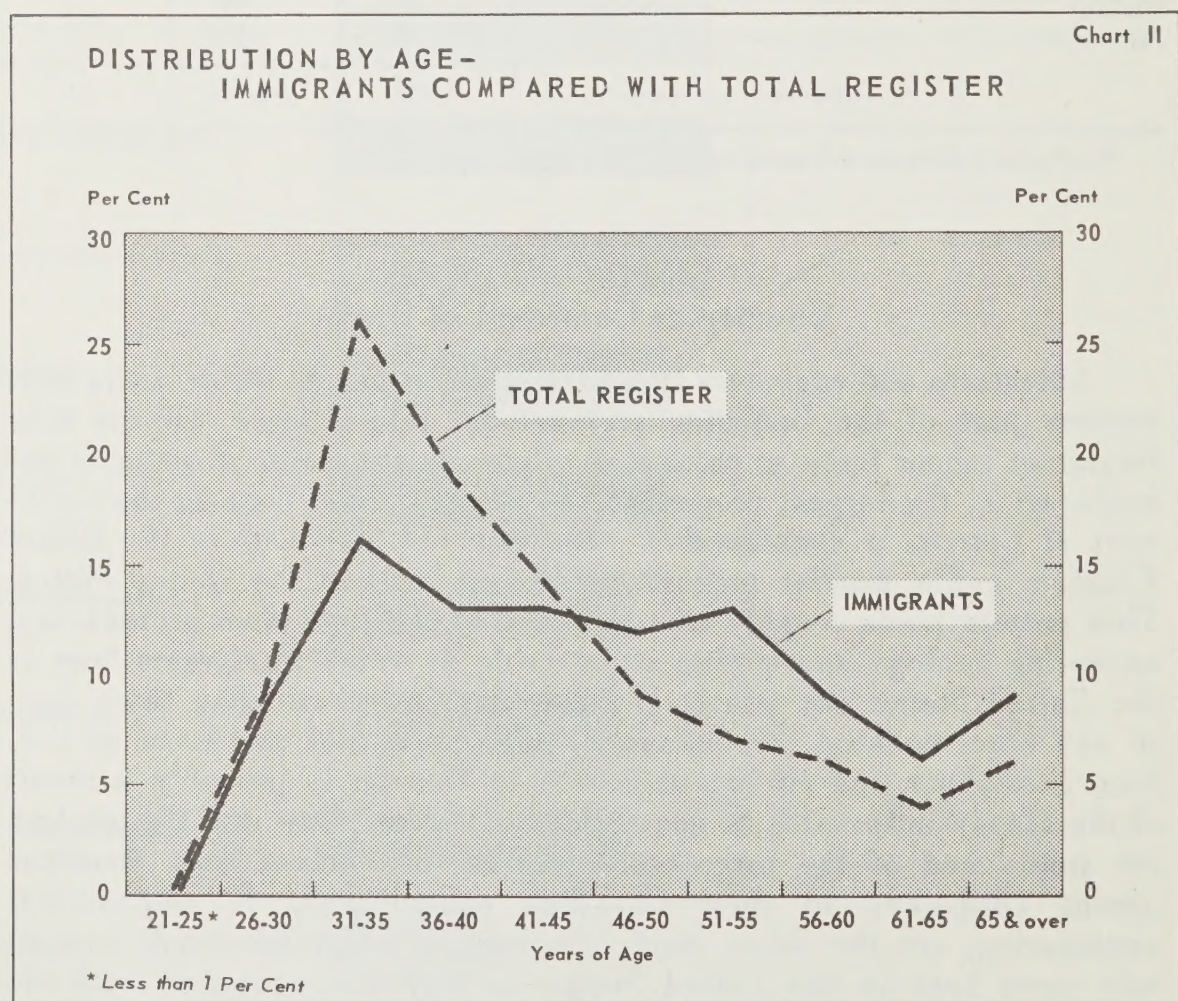
Scientists and engineers from almost all countries of the world have become part of the Canadian professional labour force. Of the total immigrant labour force at present available in the fields of science and engineering, the largest proportion (44 per cent) was born on the Continent of Europe, a considerable proportion (32 per cent) in the United Kingdom and a smaller proportion (16 per cent) in the United States. This pattern holds roughly true for most of the individual professions, excepting geology and mining engineering in which immigrants born in the United States are relatively much more numerous than those born in any other country. The unusually high numerical incidence of U.S. born geologists and mining engineers in Canada is probably a result of the steady influx of U.S. specialists in recent years into the western oil fields and of the large-scale transfer of workers from American parent companies to their Canadian subsidiaries. In aeronautical engineering, on the other hand, the number of professional workers who were born in the United States is very low compared with the percentage whose place of birth was the United Kingdom or some country of Continental Europe.

Table 2 — Country or Continent of Birth of Immigrants,
by Profession

Profession	United States	United Kingdom	Other Commonwealth	Africa	Asia	Latin America ¹	Continental Europe	Total
Aeronautical Engineering.....	2	30	1	—	3	—	41	77
Agriculture.....	12	14	2	—	1	—	26	55
Architecture.....	10	50	5	—	1	—	65	131
Biology	11	20	4	—	—	—	22	57
Chemistry.....	93	180	32	1	12	2	303	623
Civil Engineering.....	62	252	56	—	20	2	313	705
Electrical Engineering.....	40	132	19	1	8	4	172	376
Forestry.....	31	30	—	—	—	1	60	122
Geography	1	7	2	—	3	—	4	17
Geology.....	38	21	11	1	2	—	15	88
Mathematics.....	—	16	1	—	—	—	12	29
Mechanical Engineering.....	92	184	27	2	10	—	286	601
Mining etc.....	105	58	23	—	8	1	57	252
Physics	9	59	10	—	6	—	36	120
Veterinary Medicine.....	3	9	1	—	—	—	52	65
Total.....	509	1,062	194	5	74	10	1,464	3,318
Percentage.....	16	32	6	*	2	*	44	100

¹Includes South America, Central America, Mexico.

*Less than 1 per cent.



Age of Immigrants, Compared with Total Register

On the whole, immigrants in the scientific and technical professions are older than their Canadian counterparts in the Register. The median age of immigrants as a group is 44 while for the total Register (including immigrants and native born Canadians) it is 39. This divergence in age may be accounted for, in part, by the fact that the median age for the total Register is becoming lower as new graduating classes from the universities are introduced to the Register each year. As shown in Table 3 and Chart II, professional workers who have been educated in Canada are mainly concentrated within the 31-35 age group, while immigrants are almost evenly distributed over five age groups, from 31 to 55, with a sharp decrease before and after the commencement and termination of these age groups.

Table 3 - Distribution by Age - Immigrants Compared with Total Register

Age Group	Immigrants		Total Register	
	Number	Per Cent	Number	Per Cent
21-25	10	*	18	*
26-30	280	9	3,552	9
31-35	542	16	10,241	26
36-40	440	13	7,786	19
41-45	424	13	5,355	14
46-50	411	12	3,736	9
51-55	423	13	2,847	7
56-60	305	9	2,245	6
61-65	186	6	1,711	4
Over 65	297	9	2,280	6
Total	3,318	100	39,772	100
Median	44 years		39 years	

*Less than 1 per cent

Age of Immigrants, by Profession

As indicated above the median age of all immigrants in the Scientific and Technical Personnel Register is 44 years. The median age for most of the professions including almost all the engineering fields, fall within a year or two of this age (see Table 4).

In the mining profession, which includes milling and metallurgy, the median age of immigrants is 52, which is remarkably higher than for immigrants as a whole. In agriculture the median age is also higher than for the other professions.

In contrast, the median age of immigrants in both geography and veterinary medicine, at 39, is lower than for immigrants as a whole and the median age in physics, at 38, is lower still.

Table 4 – Age of Immigrants, by Profession

	21- 25	26- 30	31- 35	36- 40	41- 45	46- 50	51- 55	56- 60	61- 65	Over 65	Total	Me- dian Age
Aeronautical Engineering..	—	2	10	14	15	11	15	7	1	2	77	43
Agriculture.....	—	3	9	6	4	3	7	6	8	9	55	50
Architecture.....	—	4	17	21	29	17	11	10	11	11	131	44
Biology	—	4	5	9	12	10	11	1	3	2	57	45
Chemistry.....	4	56	122	98	69	69	90	63	30	22	623	43
Civil Engineering.....	5	82	117	75	59	96	68	52	43	108	705	46
Electrical Engineering.....	1	28	65	50	55	47	46	31	16	37	376	44
Forestry.....	—	9	24	15	15	7	19	14	7	12	122	45
Geography	—	—	5	4	3	3	1	1	—	—	17	39
Geology	—	10	14	11	16	11	5	7	7	7	88	44
Mathematics.....	—	2	3	3	3	5	5	5	3	—	29	49
Mechanical Engineering....	—	44	94	68	89	79	83	64	34	46	601	46
Mining, etc.....	—	14	17	23	28	33	46	36	20	35	252	52
Physics	—	18	23	29	19	11	12	6	1	1	120	38
Veterinary Medicine.....	—	4	17	14	8	9	4	2	2	5	65	39
Total.....	10	280	542	440	424	411	423	305	186	297	3,318	44
Percentage.....	—	8	16	14	13	12	13	9	6	9	100	—

Age of Immigrants, by Academic Level

The highest concentration of immigrants with a bachelor's or doctor's degree is at the 31-35 age level.

Above 35, master's degrees are more evenly distributed over the groups ending at 50. After the latter age, there is a sharp decrease in the number of immigrant professionals holding degrees.

In short, the proportion of scientists and technical persons without degrees is lower in the younger age groups, and relatively high in the middle age groups, with a concentration above the age of 50.

Table 5 – Age of Immigrants, by Academic Level

Age Group	No Degree	Bachelor	Master	Doctor	Total
21-25	1	7	2	—	10
26-30	16	195	41	28	280
31-35	38	345	81	78	542
36-40	31	258	96	55	440
41-45	28	221	107	68	424
46-50	30	226	102	53	411
51-55	48	220	99	56	423
56-60	34	168	58	45	305
61-65	50	104	16	16	186
Over 65	82	165	32	18	297
Total	358	1,909	634	417	3,318

Country of University or Other Professional Training

The country in which immigrants received their first university degree or training is shown in Table 6. The totals correspond quite closely with those shown for the country of birth in Table 2. However, more immigrants were educated in the United States and the United Kingdom than were born there, indicating that some of the immigrants born in other countries received their training either in the United States or in the United Kingdom before coming to Canada.

In most of the professions, the number of immigrants educated in the United Kingdom is roughly double that of those educated in the United States. In forestry, geology, mining and agriculture, however, more immigrants were educated in the United States than in the United Kingdom. One explanation of this might be that the practice of these professions is largely similar in Canada and the United States, and the professions themselves highly developed, while it is governed by many different factors in other countries. In addition, forestry and mineral resources have played a much greater role in the economic development of the United States and Canada than in that of the United Kingdom and most other countries during the last 50 years. Many specialized schools were established in the United States to help meet these professional manpower needs. Canada has benefited greatly from the establishment of these institutions in the number of both native-born Canadians and of immigrants who have obtained their professional training there.

The high percentage of immigrants from "other" countries is largely attributable to a wave of post-war immigration from European countries, such as Hungary, Poland and Germany, where conditions have long been politically and economically unsettled.

Table 6 — Country of First Degree¹ of Immigrants, by Profession

	United States	United Kingdom	Germany	France	Other	Total
Aeronautical Engineering.....	6	32	4	—	35	77
Agriculture.....	13	12	—	—	30	55
Architecture	19	53	9	3	47	131
Biology	13	23	1	2	18	57
Chemistry	115	216	49	18	225	623
Civil Engineering	83	279	39	13	291	705
Electrical Engineering	53	159	24	13	127	376
Forestry.....	40	24	5	1	52	122
Geography	2	9	—	1	5	17
Geology	38	22	2	—	26	88
Mathematics	—	14	4	—	11	29
Mechanical Engineering	103	212	38	10	238	601
Mining, etc.	119	58	10	9	56	252
Physics	11	61	8	2	38	120
Veterinary Medicine.....	5	5	15	5	35	65
Total	620	1,179	208	77	1,234	3,318
Percentage	19	36	6	2	37	100

¹Includes basic scientific and engineering training of the non-degree type.

Academic Level of Immigrants

There is a notable difference between the levels of academic education attained by immigrants and by registrants as a whole.

In the case of the total Register, made up principally of native-born Canadians, 74 per cent attained bachelor level; only 58 per cent of immigrants have reached the same level. On the other hand, the proportion with post-graduate training is considerably higher for immigrants than for the Register as a whole.

The proportion of immigrants who have no degree is also higher than in the case of Canadian registrants, but this is largely due to the fact that many immigrants possess other qualifications, such as the Higher National Certificate which is granted in the United Kingdom. Such qualifications, while not recognized as degrees, do confer professional status on their possessors, subject to certain conditions.

In the individual professions, the academic level of attainment reached by immigrants is largely similar to that achieved by Canadian-educated registrants. A high percentage of immigrant architects possess no degree. Engineers are concentrated at the bachelor level, and a high proportion of biologists and physicists hold a doctorate.

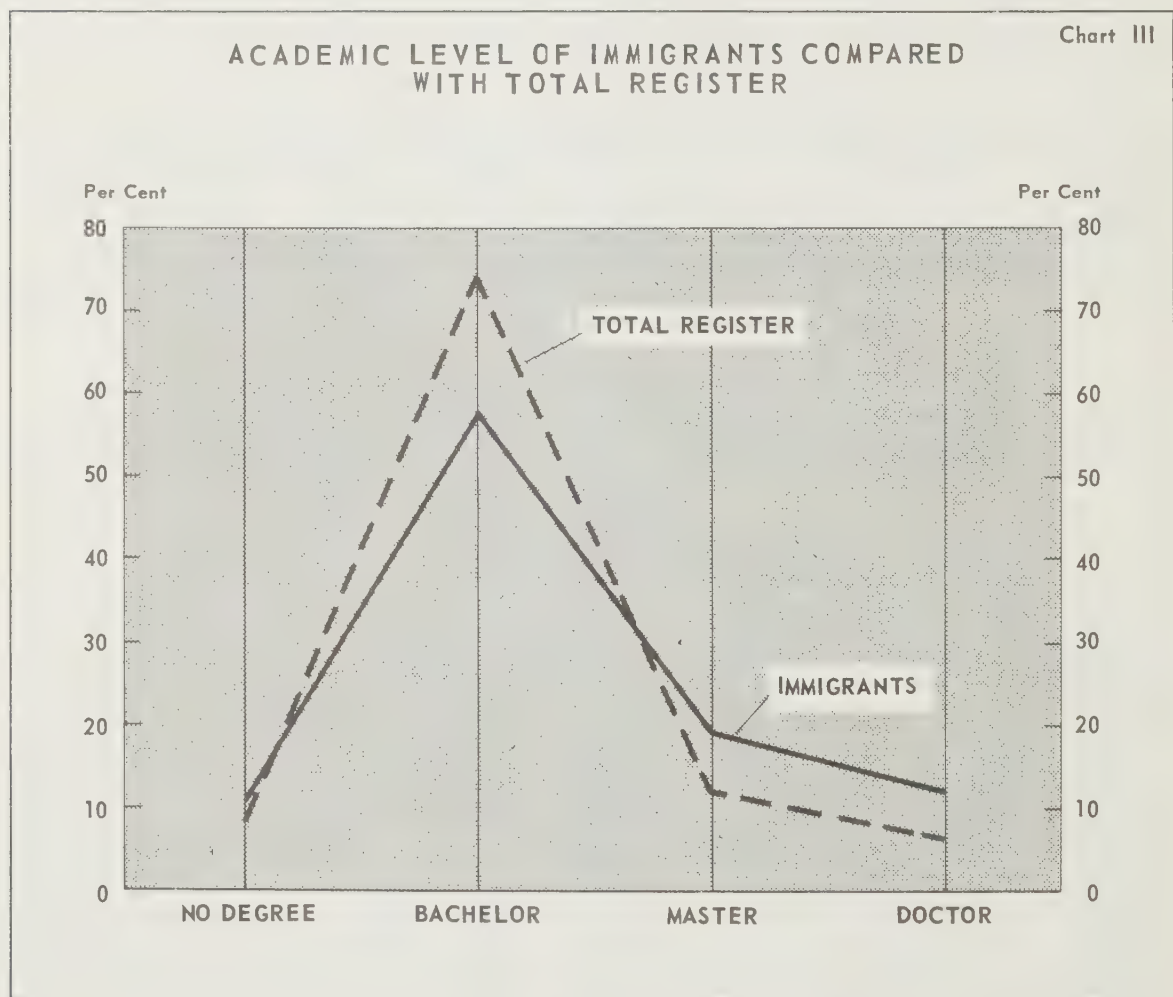


Table 7 — Academic Level of Immigrants, by Profession

Profession	No Degree		Bachelor		Master		Doctor		Total	
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent
Aeronautical Engineering ..	9	12	47	61	17	22	4	5	77	100
Agriculture	—	—	22	40	23	42	10	18	55	100
Architecture	34	26	74	56	21	16	2	2	131	100
Biology	1	2	9	16	11	19	36	63	57	100
Chemistry	36	6	313	50	96	15	178	29	623	100
Civil Engineering	95	13	462	66	126	18	22	3	705	100
Electrical Engineering.....	57	15	239	64	71	19	9	2	376	100
Forestry.....	9	7	74	61	36	30	3	2	122	100
Geography	—	—	1	6	11	65	5	29	17	100
Geology.....	1	1	38	43	18	20	31	36	88	100
Mathematics	—	—	5	17	9	31	15	52	29	100
Mechanical Engineering.....	80	13	372	62	132	22	17	3	601	100
Mining, etc.....	30	12	177	70	29	12	16	6	252	100
Physics.....	4	3	20	17	27	23	69	57	120	100
Veterinary Medicine	2	3	56	86	7	8	—	—	65	100
Total Immigrants	358	11	1,909	58	634	19	417	12	3,318	100
Total Register.....	2,935	8	28,315	74	4,544	12	2,436	6	38,230	100

Functions Performed by Immigrants

The functions performed by immigrants, with corresponding percentages for the Register as a whole, are shown in Tables 8 and 9 and in Chart IV.

A higher proportion of immigrants than of registrants generally are employed in research, development and consulting work. In design work the ratio of immigrants to Canadian registrants so employed is almost 2 to 1. More than two-fifths of all immigrants in the Register are engaged in design, research or development work.

The proportion of immigrants employed in operation, maintenance and sales and service, on the other hand, is only about one-half as great as for registrants as a whole.

In the remaining functions the ratios of both immigrants and the total Register are about the same.

In general, therefore, it appears that a larger proportion of immigrants than of native Canadians go into research and planning work, and a smaller proportion go into operational work.

Employers of Immigrants

About two of every five immigrants are employed in manufacturing industries, and almost one-sixth of all immigrants are engaged in work for the government. More than one-half of all immigrants included in the Register are employed by these two major categories of employer.

The proportion of immigrants engaged in manufacturing (40 per cent) is considerably higher than for the Register as a whole (35 per cent), but the proportion in government work (15 per cent) is much lower.

Other employment fields in which relatively large numbers of immigrants are engaged include consulting, education, construction, mining and public utilities.

Geographical Distribution

The present location of immigrants is shown in Table 11.

Most immigrants are employed in Ontario, Quebec and British Columbia, in order of decreasing numerical importance; Ontario employs almost four times the number employed in British Columbia.

The ratio of immigrants to the total Register is lowest in Nova Scotia, Saskatchewan, and New Brunswick in ascending order of importance.

In the remaining areas the ratios are about equal. A relatively higher percentage of native Canadians (4.9 per cent) than of immigrants (1.7 per cent) are, however, employed outside Canada.

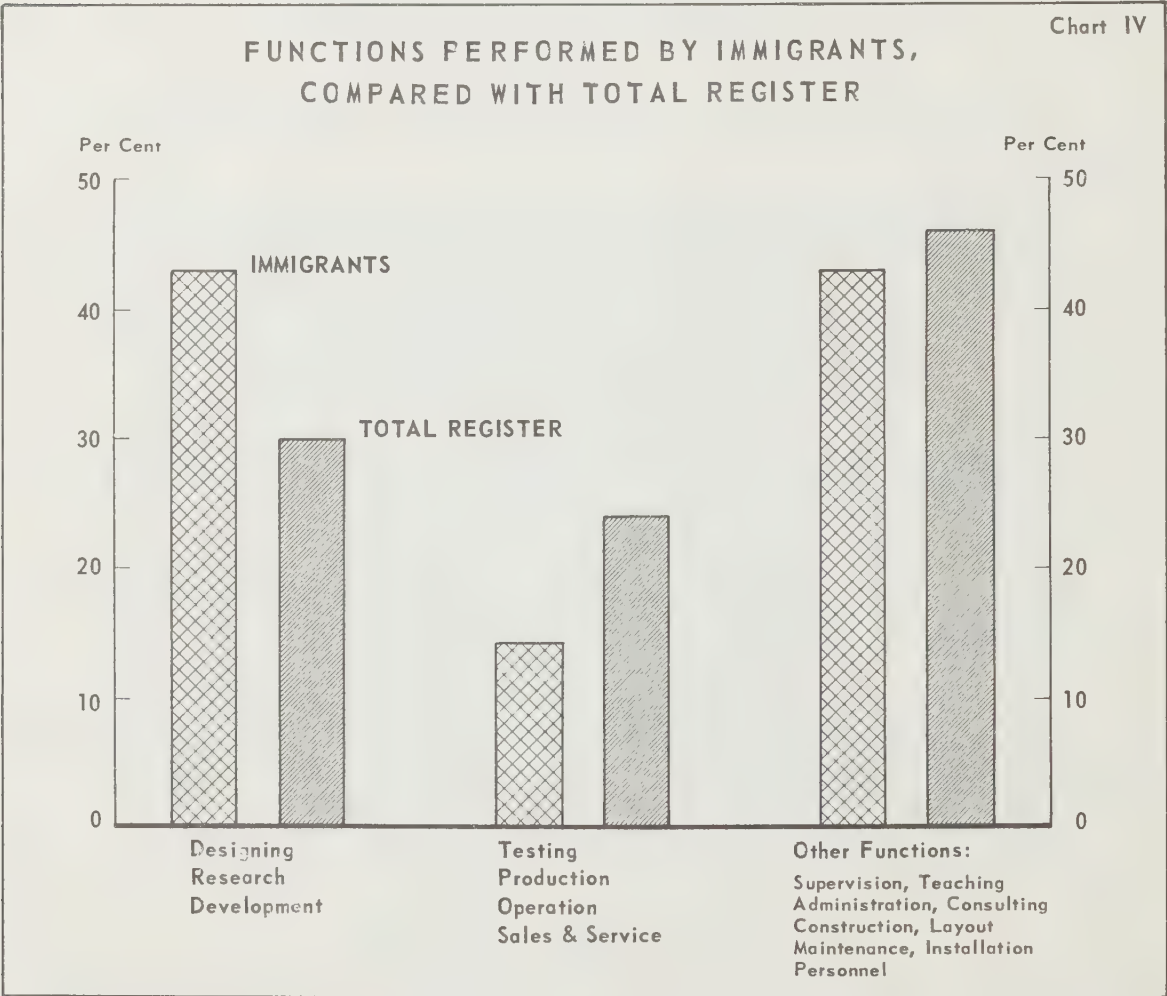


Table 8 — Functions Performed by Immigrants, by Profession

Function	Aeronautical Engineering	Agriculture	Architecture	Biology	Chemistry	Civil Engineering	Electrical Engineering	Forestry	Geography	Geology	Mathematics	Mechanical Engineering	Mining, etc.	Physics	Veterinary Medicine	Total Immigrants		Total Register Per Cent
																No.	Per Cent	
Research	11	15	5	26	197	11	21	17	3	23	1	31	25	67	1	454	13.7	12.1
Development	13	—	5	—	82	12	68	6	—	16	—	53	27	4	1	287	8.6	7.4
Designing	25	1	82	—	8	285	98	4	—	—	—	167	4	—	—	674	20.3	11.1
Testing	7	9	—	3	74	10	21	1	—	—	—	14	6	—	29	174	5.2	7.1
Installation	—	—	—	—	3	8	20	—	—	—	—	17	2	—	—	50	1.5	1.5
Production	2	1	1	—	51	3	10	5	—	4	—	39	26	—	1	143	4.3	5.8
Operation	—	—	—	—	13	10	8	19	—	2	—	17	20	5	—	94	2.8	4.6
Maintenance	2	—	—	—	1	20	11	—	—	—	—	22	1	—	—	57	1.7	3.4
Construction	—	1	5	—	1	136	6	1	—	—	—	3	—	—	—	153	4.6	5.1
Layout	—	—	4	—	—	30	6	11	—	1	—	13	7	—	—	72	2.2	3.2
Administration	4	2	11	1	42	37	29	16	—	2	1	50	24	3	—	222	6.7	6.2
Supervision	9	8	7	—	82	73	36	30	—	10	—	91	75	5	2	428	12.9	14.2
Teaching, etc.	3	16	7	27	34	15	8	9	14	12	27	15	5	35	5	232	7.0	7.1
Sales and service	1	1	—	—	21	3	19	—	—	—	—	28	3	—	—	76	2.3	5.8
Consulting	1	1	4	—	11	52	10	2	—	18	—	37	26	1	26	189	5.7	4.0
Personnel	—	—	—	—	2	—	—	—	—	—	—	3	—	—	—	5	0.2	0.6
Accounting	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	2	0.1	0.2
Other	—	—	—	—	—	—	5	1	—	—	—	—	—	—	—	6	0.2	0.6
Total	77	55	131	57	623	705	376	122	17	88	29	601	252	120	65	3,318	100.0	100.0

Table 9 – Functions Performed by Immigrants, by Employer Type

Function	Unreported	Primary Industries ¹	Mining	Manufacturing	Construction	Transportation	Public Utilities	Trade	Finance	Education ²	Consulting	Government ³	Other	Total Immigrants		Total Register Per Cent
														No.	Per Cent	
Research	29	2	21	118	1	3	6	1	—	56	12	189	16	454	13.7	12.1
Development	7	1	19	204	3	2	7	2	2	2	10	27	1	287	8.6	7.4
Designing	51	—	17	264	62	22	40	—	1	3	139	66	3	674	20.3	11.1
Testing	25	—	2	75	7	2	5	1	1	3	2	44	7	174	5.2	7.1
Installation	5	1	—	24	6	7	1	—	—	—	6	—	—	50	1.5	1.5
Production	11	1	12	95	3	—	3	2	—	1	6	8	1	143	4.3	5.8
Operation	4	2	22	36	4	5	4	—	—	—	3	14	—	94	2.8	4.6
Maintenance	6	—	1	26	4	9	1	1	—	—	2	7	—	57	1.7	3.4
Construction	17	1	2	21	36	10	15	2	—	—	17	32	—	153	4.6	5.1
Layout	—	—	7	17	6	3	3	—	—	—	20	21	1	72	2.2	3.2
Administration	4	3	14	118	19	8	9	3	1	1	11	30	1	222	6.7	6.2
Supervision	7	3	48	237	27	9	17	1	2	—	30	44	3	428	12.9	14.2
Teaching, etc.	10	—	1	6	—	—	—	—	1	197	3	13	1	232	7.0	7.1
Sales and service	1	—	—	67	2	—	—	2	1	—	2	—	1	76	2.3	5.8
Consulting	9	—	4	26	4	1	—	—	—	—	132	13	—	189	5.7	4.0
Personnel, etc.	2	—	—	3	—	—	—	—	—	—	—	—	—	5	0.2	0.6
Accounting	—	—	—	2	—	—	—	—	—	—	—	—	—	2	0.1	0.2
Other	1	—	—	1	1	1	—	—	—	2	—	—	—	6	0.2	0.6
Total	189	14	170	1,340	184	82	112	15	9	263	397	508	35	3,318	100.0	100.0

¹Includes agriculture, forestry and fishing.
²Educational institutions on the university and college level.
³Includes federal, provincial and local governments and the armed forces.

Table 10 — Immigrants in the Professions, by Employer Type

	Unreported	Primary Industries ¹	Mining	Manufacturing	Construction	Transportation	Public Utilities	Trade	Finance	Education ²	Consulting	Government ³	Other Service	Total
Aeronautical Engineering	2	—	—	54	—	1	1	—	—	2	1	15	1	77
Agriculture	5	1	—	12	2	—	—	1	2	12	1	19	—	55
Architecture	10	—	—	6	3	7	2	1	—	10	75	17	—	131
Biology	1	—	1	1	—	1	—	1	—	31	—	19	2	57
Chemistry	34	1	13	390	2	4	2	2	1	66	11	77	20	623
Civil Engineering	45	—	8	120	147	38	39	3	1	12	142	149	1	705
Electrical Engineering	22	1	4	210	13	19	49	—	2	4	20	29	3	376
Forestry.....	6	9	1	49	2	1	1	1	—	4	8	39	1	122
Geography	—	—	—	—	—	—	—	—	—	15	—	2	—	17
Geology	6	—	34	10	—	—	1	—	—	12	18	6	1	88
Mathematics.....	—	—	—	—	—	—	—	—	—	27	—	2	—	29
Mechanical Engineering.....	38	—	7	404	13	8	12	4	2	15	62	34	2	601
Mining, etc.....	13	1	100	78	2	3	3	2	1	5	32	12	—	252
Physics	7	—	2	6	—	—	2	—	—	43	3	54	3	120
Veterinary Medicine.....	—	1	170	—	—	—	—	—	—	5	24	34	1	65
Total	189	14	170	1,340	184	82	112	15	9	263	397	508	35	3,318
Percentage, immigrants	5.6	0.4	5.1	40.4	5.5	2.5	3.4	0.5	0.3	7.9	12.0	15.3	1.1	100.0
Percentage, total Register.....	2.9	1.7	5.3	35.6	4.3	3.9	4.7	1.2	0.8	6.1	8.6	23.5	1.4	100.0

¹Includes agriculture, forestry and fishing.

²Educational institutions on the university and college level.

³Includes federal, provincial and local governments and the armed forces.

Table 11 — Immigrants in the Professions, by Present Location

Profession	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon & N.W.T.	Outside Canada	Total
Aeronautical Engineering.....	—	—	—	—	26	44	1	—	—	3	—	3	77
Agriculture.....	—	—	—	—	9	17	6	4	7	9	—	2	55
Architecture.....	—	—	—	—	53	32	8	3	7	25	—	1	131
Biology	—	—	—	—	16	16	4	—	4	13	—	2	57
Chemistry.....	7	—	8	6	235	283	9	8	11	42	—	13	623
Civil Engineering.....	12	—	8	6	231	274	21	3	28	115	3	4	705
Electrical Engineering.....	2	1	5	—	119	209	4	—	9	23	—	4	376
Forestry.....	—	—	1	—	30	33	5	2	7	42	1	1	122
Geography	—	—	—	—	7	7	1	—	—	1	—	1	17
Geology	—	—	—	—	6	39	1	5	23	9	—	3	88
Mathematics	—	—	—	—	7	11	—	1	1	1	—	2	29
Mechanical Engineering	—	—	5	4	208	301	10	5	16	40	—	9	601
Mining Engineering.....	1	—	7	3	66	75	4	1	42	41	4	10	252
Physics	1	—	5	1	19	70	5	1	8	12	—	2	120
Veterinary Medicine	—	—	2	1	1	19	16	9	13	4	—	—	65
Total	25	1	45	25	1,033	1,430	95	42	176	380	9	57	3,318
Per cent.....	0.7	—	1.5	0.7	30.0	43.9	3.1	1.4	5.3	11.4	0.3	1.7	100.0
Total Register	0.5	0.2	2.6	1.9	23.1	43.3	3.8	3.3	6.8	9.3	0.3	4.9	100.0

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